VST SHAKTI
100%
INDIAN

VST SHAKTI

COMPLETE HORTICULTURE PACKAGE FOR FARMERS BY VST SHAKTI POWER TILLER

INDEX

INTRODUCTION

VST SHAKTI 130DI POWER TILLER - BEST IN THE FIELD FOR HORTICULTURE

VST Shakti gives a guide for complete horticulture package for farmers. It aims to cover complete process, agricultural implements required, key benefits of using VST tillers for cultivation and economics of horticultural farming.

KEY FEATURES

- Rotary widths: 600, 540 & 340 mm.
- Turning Radius: with brake 1.0 mt; without brake 1.5 mt
- Best for Inter Cultivation – 1.22 mt & 1.53 mt width.
- Less soil compaction; very good tilling; 25% increase in yield and field coverage.
- Robust transmission assembly design, which is capable of taking extreme loads even on dry soil.

KEY BENEFITS

- First company to introduce Power Tillers as farm machinery replacing manual farming.
- Easy maneuverability & light in weight.
- Unique design; easy availability of spares & service; good resale value.
- Established brand over decades in the farming community.

FIELD PREPARATION

CULTIVATOR

A Cultivator is used to break up the soil prior to sowing. It is drawn by a power tiller.

KEY FEATURES

- Tines / blades are designed for heavy duty working.
- 5 tynes are provided in rigid type cultivators.
- 0.25 ~ 0.4 acres can be cultivated in 1 hour with average diesel consumption of 1.0 ~ 1.25 lts / hr of operation

KEY BENEFITS

- Rigid cultivator is used for tilling soil.
- Helps in preparing the soil for a new crop.
- Has high strength & rigidity.
- Tough in construction.

FIELD PREPARATION

ROTARY ASSEMBLY

A rotary assembly is a mechanized device used for breaking up the topsoil in the process of preparation before planting. Spinning blades are attached to the tiller that will spin and slice into the soil in order to create loose topsoil to make it ready for planting.

KEY FEATURES

- 18 tynes can be fitted for best performance in dry land.
- Straight tynes recommended for dry field.
- 0.3 ~ 0.45 acres of land can be covered in 1 hr with average diesel consumption of 1.25 ~ 1.50 lts / hr
- Depth of Tilling is 150 ~ 225 mm.

KEY BENEFITS

- Simple in construction with strong design appropriate for varied soil conditions
- The application includes : Soil conditioning, weed control, seedbed preparation.
- Most suitable for medium & small farmers.
- Sturdy Construction
- Minimum load on Tiller.

FIELD PREPARATION

BUND FORMATION

Building bunds help in slowing down of water runoff, which leads to increased water infiltration and enhanced soil moisture.

KEY FEATURES

- 18 no. Bent tynes are fitted to the rotary.
- Sufficient moisture is a must for good bund formation.
- Average fuel consumption – 0.75 ~ 1.0 lts / min

KEY BENEFITS

- Useful for forming bunds around trees
- Bund will help in preserving water around the tree.
- Bund formation is made by operating the tiller in reverse direction.
- Adequate training is a must to an operator before bund forming

WATER PUMP

KEY FEATURES

- Pump is driven by a belt connected to engine pulley.
- 7.6 x 5 cms pump is most suitable for general purpose use.
- Suction head (height) – 5 meter
- Delivery head (height) – upto 7.62 meter
- Discharge – 440 lts / min
- Average fuel consumption – 1.25 ~ 1.5 lts / min

KEY BENEFITS

- Useful for pumping water from irrigation canals, lakes and wells, etc..
- This is very essential where there is water scarcity or less rainfall.
- Crops can be safe guarded with timely supply of water.
- A tanker with self priming pump can be easily fitted for cleaning septic tanks, cess pools, clogged drainage, wells etc.

SPRAYING

The sprayer unit is used for spraying pesticides and insecticides to avoid pests in the field.

KEY FEATURES

- 100% mixing of water and chemical is ensured during the spraying.
- Spraying pump is driven by the belt drive from the engine pulley.
- Available in 200 tank capacities, weight of spraying unit ~ 180 kgs
- Average diesel consumption is 1.25 ~ 1.5 lt per hour of operation.

KEY BENEFITS

- Useful for spraying of chemicals / insecticides on plants in open field.
- Nozzles are provided to ensure equal spreading of the spray on both sides of the tiller.
- Nozzle pressure can be adjusted.
- Spraying pump is driven by the belt drive from the engine pulley.

PIT FORMING - AUGER DIGGER

KEY FEATURES

- Pit diameter is 30 ~ 35 cm
- Depth of the pit is 45 cm
- No. of pits that can be dug – 40 ~ 45 / hr of operation
- Average fuel consumption is 0.80 lts / hr of operation

KEY BENEFITS

- Auger digger is very useful attachment for making pits.
- It is attached to the hitch bracket in place of Rotary assembly.
- The auger digger consists of a spiral with a cutting edge at the lower end.
- The pinion which is attached to the rack is driven by belt & pulley arrangement, the auger rotates at the speed of 110 rev / min.
- A dog clutch mechanism is provided to engage / disengage the engine power to the auger digger
- This is easily transportable with the help of 2 metal wheels provided to the auger digger.

HAULAGE

TRANSPORTATION

KEY FEATURES

- Trailer capacity is maximum 1.5 tons.
- Standard dimensions – 3.85 x 1.10 x 0.40 mts (L x W x H)
- Average consumption of diesel is 1.0 lts ~ 1.25 lts / hr.
- Trailers can be suitably modified for:
  - Garbage collection & transportation
  - A tanker of maximum capacity 1000 litres for carrying drinking water

KEY BENEFITS

- Primarily required for transporting manure, chemicals, implements, produce etc.
- Trailer with a mechanical brake is commonly used.
- Hydraulic tipping type can be made on specific request.
- Spraying pump can be fitted with modification for spraying application.

VST SHAKTI

INDICATIVE COMMERCIAL OFFER – CUSTOM HIRING BY VST SHAKTI

SL. NO.	IMPLEMENTS	MRP (Rs.)	MRP (Rs.) as per SMAM GUIDELINE
1	Cultivator	7700	4620
2	Sprayer	29750	17850
3	Augur Digger	35000	21000
4	Water Pump	22000	22000
5	A. C. Generator	52500	52500
6	Trailer	55000	55000
	Total	**201950**	**172970**
7	VST Shakti 130 DI Power Tiller	160000	96000
8	**Total Cost with Tiller**	**361950**	**268970**

Freight & taxes etc as applicable
Calculation as per SMAM (for subsidy) guidelines for assistance

PAY BACK PERIOD

SL. NO	DESCRIPTION	FUEL EXPENSES (Rs/hr)	MAINTENANCE OF TILLER & WEAR/TEAR (Rs/hr)	LABOUR COST (Rs/hr)	TOTAL EXPENSE (Rs/hr)	HIRING COST (Rs/hr)	NET INCOME (Rs/hr)	WORKING FOR 1 SEASON (90 ACRES)	EARNING (Rs.) - MRP	EARNING (Rs.) - SMAM GUIDELINE
1	Cultivator	60	10	50	120	500	380	240	91200	91200
2	Sprayer	60	20	55	135	250	115	180	20700	20700
3	Auger Digger	36	10	75	121	400	279	100	27900	27900
4	Generator	72	15	50	137	200	63	200	12600	12600
5	Trailer	48	15	50	113	175	62	100	6200	6200
6	Water Pump	72	20	50	142	200	58	100	5800	5800
						TOTAL INCOME			**164400**	**164400**
						IF 80% IS ACHIEVED			**131520**	**131520**
						TOTAL INVESTMENT			**361950**	**268970**
						DEPRECIATION @ 15%			**54293**	**40346**
						NETT INCOME			**77228**	**91175**
						ROI			**21%**	**34%**
						PAY BACK PERIOD			**~ 4 SEASONS**	**~ 3 SEASONS**

Assumption - 100% is 1 season

VST SHAKTI

ASSUMPTIONS MADE

OPERATION	ACRES/ DAY (8 HOURS)	ACRES/ HOUR	NO. OF DAYS REQD FOR 90 ACRES	NO. OF HOURS
Cultivator	3	0.38	30	240
Sprayer	4	0.50	23	180
Auger	4	0.5	23	180

- Cultivator maintenance after every season ~ Rs. 1500/-
- Diesel cost Rs. 48 / ltr is considered
- Recommend service of power tiller (includes change of oil and filters) at the end of season - Rs. 3500/-
- Salary towards labour Rs. 7500 / month for working 8 hours a day for 25 days
- Recommended service of Auger digger at the end of season ~ Rs. 1000/-

Do follow us on:

Toll Free Number:
18004190136

Plot No- 1, Dyavasandra Indl. Layout, Whitefield Road, Mahadevapura Post, Bangalore-560048, Karnataka. INDIA
Phone: +91 - 80 – 67141418/23 | +91 - 80 - 67141111, Fax: + 91 - 80 – 28510221, CIN: L34101KA1967PLC001706.
www.vsttillers.com